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(54) Title: CONTACTLESS MEASURING OF POSITION AND ORIENTATION

(57) Abstract

The invention relates to a method and a device for contactless or touch-free measurement of a tool by means of imaging area means (4, 5). Processing means (30) makes calculations based on image points on the tool, imaged onto the imaging area means. Optics (41, 42; 51, 52) presents the image of the image points on the tool on the imaging area means, the processing means (30) being adapted to calculate the momentary position and/or orientation along at least one axis of the tool making use of the image points. A number of measuring elements and/or markers (8, 9; 13-16; 20-23; 26-28) has predetermined mutual positions and are provided on the tool. Each measuring element and/or marker comprises at least one measuring point. At least one of the points is identifiable. Each measuring element and/or marker to be used as position and/or orientation indicating means has a size making it restorable by the processing means even if a part of it on the tool is obscured for the image area means, for example by dust.

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